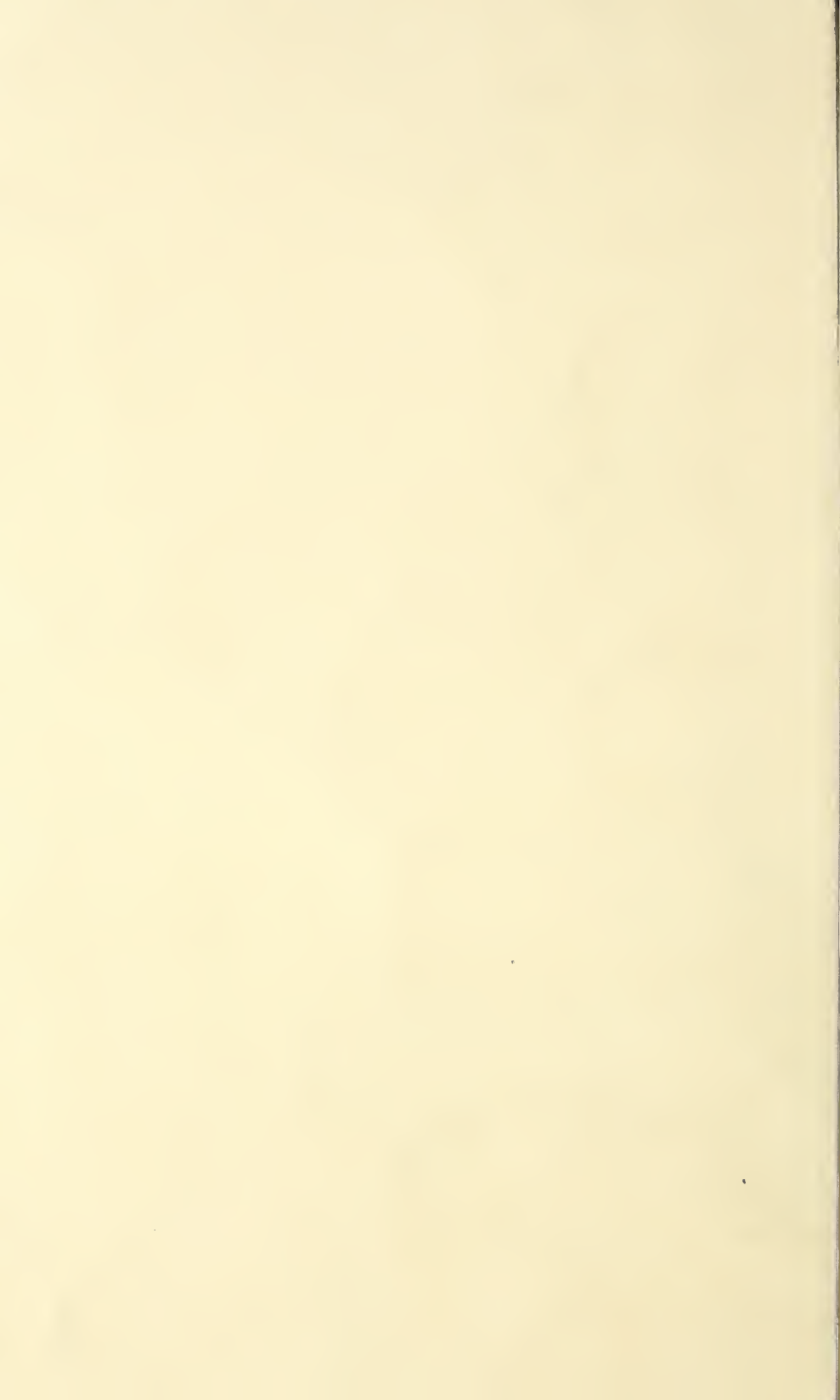


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Dairy Div. 135

# REPORT

OF

## COMMITTEE APPOINTED BY THE SECRETARY OF AGRICULTURE

To Consider the Subject of Farm Organization as one of  
the Divisions of Research Work of the Proposed  
Bureau of Farm Management and  
Farm Economics



UNITED STATES DEPARTMENT OF AGRICULTURE  
CIRCULAR 135  
OFFICE OF THE SECRETARY

Washington, D. C.

May, 1919



## REPORT OF COMMITTEE ON FARM ORGANIZATION.

APRIL 17, 18, AND 19, 1919.

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Farm organization is one of the large and important projects of the Office of Farm Management as outlined by the committee appointed by the Secretary of Agriculture to consider plan of organization, scope of work, and projects of the Office of Farm Management. The plan outlined includes seven major projects: 1. Cost of production; 2. Farm organization; 3. Farm finance; 4. Farm labor; 5. Agricultural history and geography; 6. Land utilization; 7. Farm-life studies. Of these projects the original committee gave especial attention to the cost of production as being of primary importance. (See Circular 132, Office of the Secretary, U. S. Department of Agriculture.) Farm organization is considered as next in importance.

The successful farm is that one on which the land, labor, and equipment are so organized in the production of crops and live stock as to yield the maximum profit to the farmer consistent with the welfare of all concerned. This requires adjusting the farm activities to the market demands as well as to the physical basis of production and to the cost of each of the agencies used in production. With the rapid growth of agriculture in the United States many farms have been developed without due reference to the market and to the best methods of handling the crops and live stock and their disposition on the farm or in the market.

Under the heading of farm organization in the Office of Farm Management in this department and in the investigational work of some of the State institutions projects have been taken up which more properly belong to the field of agronomy, animal husbandry, horticulture, agricultural engineering, and other subject-matter divisions. This has resulted in some discussion as to farm-organization studies that should be carried on by farm-management investigators. If the work in farm management and farm economics is to be developed in an effective and harmonious way, it seems necessary that the field of farm organization be clearly defined.

With this in mind, the Secretary of Agriculture called a conference, April 17, 18, and 19, to give especial consideration to the subject of farm organization. The following persons were in attendance:

- Prof. Alva Agee, secretary State department of agriculture, Trenton, N. J.
- Mr. J. B. Andrews, University of Illinois, Urbana, Ill.
- Prof. Frank App, College of Agriculture, New Brunswick, N. J.
- Director T. P. Cooper, College of Agriculture, Lexington, Ky.
- Prof. H. M. Eliot, College of Agriculture, College Station, Tex.
- Prof. J. R. Fain, College of Agriculture, Athens, Ga.

Dr. J. I. Falconer, College of Agriculture, Columbus, Ohio.

Mr. H. W. Jeffers, Plainsboro, N. J.

Prof. K. C. Livermore, College of Agriculture, Ithaca, N. Y.

Mr. A. W. Manchester, Storrs, Conn.

Prof. H. B. Munger, College of Agriculture, Ames, Iowa.

Dean E. C. Johnson, Agricultural College, Pullman, Wash.

Mr. L. S. Robertson, Purdue University, Lafayette, Ind.

Prof. Daniel Scoates, Agricultural College, Miss.

Mr. L. D. Sweet, Denver, Colo.

Director P. F. Trowbridge, Agricultural Experiment Station, Fargo, N. Dak.

Dr. A. F. Woods, President State College of Agriculture, College Park, Md.

Mr. E. C. Chilcott, in charge, Dry-Land Agriculture Investigations, Bureau of Plant Industry.

Mr. J. F. Cook, Assistant to the Secretary.

Dr. Bradford Knapp, Chief, Office of Extension Work South, States Relations Service.

Dr. C. W. Larson, Dairy Division, Bureau of Animal Industry.

Mr. C. V. Piper, in charge, Forage-Crop Investigations, Bureau of Plant Industry.

Mr. George M. Rommel, Chief, Animal Husbandry Division, Bureau of Animal Industry.

Mr. J. H. Arnold, Office of Farm Management.

Mr. G. A. Billings, Office of Farm Management.

Mr. H. M. Dixon, Office of Farm Management.

Prof. C. L. Goodrich, Office of Farm Management.

Mr. H. A. Miller, Office of Farm Management.

Mr. L. A. Moorhouse, Office of Farm Management.

Mr. F. W. Peck, Office of Farm Management.

Mr. H. R. Tolley, Office of Farm Management.

Dr. H. C. Taylor, Chief, Office of Farm Management.

Prof. G. I. Christie, Assistant Secretary of Agriculture.

The conference, after careful consideration of the subject, outlined the research work which should be taken up under the head of farm organization. Suggestions were also made as to the line of demarcation between farm management and farm economics investigations and crop, live-stock, and other subject-matter investigations. The conference also suggested closer cooperation between the Office of Farm Management and the State agricultural colleges and experiment stations, and recommended that the work in farm organization be enlarged and carried forward in a vigorous way.

The report of the committee has been carefully considered by the Secretary of Agriculture and has received his approval. He has authorized the Office of Farm Management to proceed with plans for the work.

The Office of Farm Management is now seeking a leader for the farm organization division. It is hoped that a strong and competent man can be secured at an early date, so that the work may go forward in a strong way.

G. I. CHRISTIE,  
*Assistant Secretary.*

MAY 9, 1919.



DEPARTMENT OF AGRICULTURE,  
OFFICE OF THE SECRETARY,  
*Washington, April 19, 1919.*

HON. DAVID F. HOUSTON,  
*Secretary of Agriculture.*

DEAR MR. SECRETARY: Your committee called by you for consideration and discussion of the subject of farm organization as one of the divisions of research work of the proposed Bureau of Farm Management and Farm Economics, and the relation of the bureau to the States, submit the accompanying report.

Our discussions covered principally the following points:

1. An outline of the research work which seems to come logically under the head of farm organization.

2. A suggested statement of the line of division between farm economics investigations and crop or live-stock investigations when dealing with single enterprises; and a suggested method of procedure when dealing with these economic problems of single crop or stock enterprises which seem to be in the fields of both the farm economics subjects and the crop or stock subjects.

3. An expression of opinions of the usefulness of different methods of investigation as applied to farm organization problems.

4. A suggested method of cooperation with the State colleges and experiment stations in farm management and farm economics investigations.

The conference wishes to indorse the recommendations made by a preceding committee, whose report is published in Circular 132, Office of the Secretary, United States Department of Agriculture, especially the recommendation made on page 6, which is as follows:

In recognition of the work already accomplished in farm economics along with the investigational work in farm management, and in view of the great need for still further economic studies of the farming business, the committee recommends that the office be expanded to include both farm management and farm economics under the name of "Bureau of Farm Management and Farm Economics."

Respectfully submitted.

George A. Billings, H. R. Tolley, H. M. Dixon, F. W. Peck, John R. Fain, A. W. Manchester, Lynn Robertson, C. L. Goodrich, J. H. Arnold, P. F. Trowbridge, Edward C. Johnson, J. B. Andrews, C. V. Piper, Frank App, G. I. Christie, Thomas Cooper, Lou D. Sweet, L. A. Moorhouse, Junius F. Cook, J. I. Falconer, H. B. Munger, K. C. Livermore, H. M. Eliot, D. Scoates, A. F. Woods, E. C. Chilcott, Bradford Knapp, Geo. M. Rommel, H. C. Taylor, H. A. Miller, C. W. Larson.<sup>1</sup>

<sup>1</sup> Prof. Alva Agee and Mr. H. W. Jeffers were unable to attend the session of the committee at which the report was signed, and for that reason their names do not appear in the above list.





## FARM ORGANIZATION.

The conference has given careful attention to the problem of farm organization as a division of the work of the proposed Bureau of Farm Management and Farm Economics. The development of this division appears to the conference to be of great importance, as its work should provide data and information of fundamental value to the agriculture of this country. Such division of work will consider the farm problems as grouped for profit and for farm efficiency. The ideal of a successful farm is the one organized so that land, labor, and equipment are utilized in the most profitable manner in the production of agricultural products demanded by the consumer.

Such an ideal is the basis of the development of the subject-matter assigned or suggested for this division of work. The business of farming must adapt itself to the natural and physical factors as well as to the economic factors. The farmer usually makes adjustments slowly and in response to long-continued economic pressure. Often more rapid changes would prove profitable to the farmer and to the Nation and it is believed that our agricultural agencies furnished with the necessary information may hasten the adjustment in farm organization by presenting facts in farm management developed by this section.

The conference commends the action of the former committee appointed by the Secretary of Agriculture in recommending the continuation and expansion of investigational work in farm management. We especially recommend that the division of farm organization be headed by a strong, capable man. The conference submits an outline of the subject-matter, a discussion of methods, and a suggestion as to the relationship that should exist between the United States Department of Agriculture and the State colleges or experiment stations.

### OUTLINE OF STUDIES TO BE MADE IN FARM ORGANIZATION.

#### I. Types of farming:

##### (a) Determination of enterprises—

1. Climate.
2. Soil.
3. Topography.
4. Marketing costs.

##### (b) Balance or combination of enterprises—

1. Labor distribution.
2. Fertility maintenance and utilization.
3. Utilization of land.
4. Utilization of by-products and wastes.

## I. Types of farming—Continued.

## (b) Balance or combination of enterprises—Continued.

5. Risks.

6. Capital.

7. Competition.

8. Fluctuations in prices, wages, land values, etc.

## II. Size of business:

## (a) Measured by—

1. Work units.

2. Acres, number of animals, etc.

## (b) Farm unit.

## III. Farm plan or layout:

(a) Field arrangement.

(b) Farmstead arrangement.

(c) Interior building arrangement.

## IV. Effective use of labor and equipment.

## V. Intensity of production:

(a) Crops.

(b) Live stock.

## VI. Business methods.

The investigation of types of farming should attempt, first, to explain the present geographical distribution of crops and different kinds of live stock. The distribution is determined, in most cases, by one or more of the following factors: Climate, soil, topography, and marketing costs. Marketing costs here refer to all the costs of delivering the product from the farm to the primary market. Transportation usually is the largest of these costs.

Second. The investigations of types of farming should attempt to explain the balance between the enterprises that are possible in a locality, which results from the effort to secure under given price conditions, the most profitable distribution of labor, the maintenance of fertility, and the utilization of manures, land, by-products, and wastes, and to meet as advantageously as possible other problems.

In studying size of business, size may be measured in several ways. When farms vary to a considerable extent in respect to type, work units may prove the most satisfactory measures, since they are based on amount of productive work.

In the investigation of the general subject of the economic farm unit the following points are suggested for consideration:

1. The term farm unit should be the measure of the size of the farm business that is handled from one base of operations.

2. The factors influencing the size of the farm unit are the region and the type of farming. This unit may be influenced by limiting factors, such as available labor, size and type of machinery, managerial ability, and available capital.

3. The minimum and maximum farm unit that can be made an economic success in a community may be determined, as well as the optimum farm unit for the existing population.

On many farms a large proportion of the total work is done in and about the buildings. Investigations of layout or the farm plan should include, therefore, not only field arrangement but also the arrangement of buildings and other parts of the farmstead and the interior arrangement of the buildings.

The topic, effective use of labor and equipment, is intended to cover not only the efficient direction of these agencies, but also their most effective adjustment to the work planned and the most profitable substitution of horsepower for man labor and of machine power for both men and horses.

Investigations relating to intensity of production may deal with the law of diminishing returns as it is found in agriculture and the determination of the optimum rates of production as affected by such varying factors as prices of products and costs of labor, land, and materials.

Under business methods the following items are suggested for investigation: Insurance practices, record and account keeping, buying practices, speculative holdings of products, etc.

#### **COOPERATION BETWEEN FARM MANAGEMENT AND OTHER DIVISIONS OF WORK IN ECONOMIC INVESTIGATIONS OF SINGLE ENTERPRISES.**

Farm management involves the study of the economics of crop or live-stock systems, or both combined, in the general farm organization.

Single farm enterprises often involve economic as well as physical and biological problems. Economic studies of a single enterprise should have the joint approval of the farm management and any subject-matter departments concerned before being undertaken.

#### **SUGGESTED CHANGE IN THE OUTLINE OF THE RESEARCH WORK OF THE OFFICE OF FARM MANAGEMENT.**

Your committee was requested to report any changes in or additions to the outline of the research work printed on page 7 of Circular 132, Office of the Secretary, U. S. Department of Agriculture.

The committee suggests that the following be substituted for division 3 in that outline:

##### **3. Farm finance and farm relations:**

(a) Financing, taxation, insurance, etc.

(b) Relation to outside influences—

1. War influences.
2. Extension activities.
3. Legislative influences.
4. Banking influences.
5. Organization influences.
6. Community action.
7. Speculators' influence.
8. Commercial influence.
9. Etc.

## METHODS OF STUDYING FARM ORGANIZATION.

### A. Survey method:

This method may be used in making such studies as—

1. Labor income.
2. Farm enterprises.
3. Farm practices.
4. Farm costs.

The value of this method depends upon—

1. Trained investigators.
2. Sufficient numbers of records.
3. Representative data.

### B. Cost accounting method:

This method is valuable—

1. For providing basic unit factors of farm production, which are essential to the proper farm organization, such as—
  - (a) Labor requirements.
  - (b) Feed requirements.
  - (c) Material requirements.
2. As a check on more extensive methods of farm analysis, and also to compare the results obtained by other methods.

### C. Observation method:

This method should be of value when used as preliminary or supplementary to other investigational work. It should not serve as a basis for conclusions.

### D. Geographic method:

This method is valuable as a means of contributing information concerning the physical and economic factors which influence farm organization—

1. Climate.
2. Soil.
3. Topography.
4. Transportation.
5. Marketing facilities.
6. Market prices.

### E. Historical method:

This method is valuable—

1. As a means of understanding the development of the farming industry.
2. To assist in the interpretation of the trend of agricultural production.

### F. Statistical method:

This method, although involved in the other methods mentioned, may be used as a direct means of studying farm organization.

This method may be used for such studies as—

1. Cycle of production.
2. Price relationships.
3. Types of farming.

### G. Experimental method:

The experimental method may be used to advantage in the study of certain problems, such as—

1. The proper degree of intensive culture.
2. The right balance of enterprises.
3. The proper unit of organization.



## COOPERATION BETWEEN OFFICE OF FARM MANAGEMENT AND AGRICULTURAL COLLEGES AND EXPERIMENT STATIONS.

Your committee highly recommends the previous action of the committee appointed by the United States Department of Agriculture in recommending that investigations in farm management be carried on in cooperation with the State colleges or experiment stations. The combination of resources and effective workers of these institutions can not fail to increase greatly the body of knowledge that will be made available and will further its use by the farmers.

Your prior committee has cogently pointed out the benefits of effective cooperation in investigations and in view of these facts it is advised that States, as rapidly as possible, organize departments or divisions to carry on investigations in farm management and farm economics.

The following method of procedure in initiating relationships is suggested:

1. Projects for cooperative investigation may be proposed through either the proper administrative officers of the United States Department of Agriculture or of the State colleges or experiment stations.

2. Personal consultation between Federal and State representatives is advised in initiating all important phases of investigational work.

3. The college or experiment station and the United States Department of Agriculture should agree mutually upon the designation of an individual to act as joint leader of farm management and farm economics investigations for the State and the Department of Agriculture.

4. A memorandum of agreement should be drawn up between the United States Department of Agriculture and the State college or experiment station, embodying the following points:

- (a) Cooperative relations and methods of work—

Cooperative investigations in farm management and farm economics should be established in the various States upon the most equitable basis possible, in view of the conditions that exist within the States and the United States Department of Agriculture.

- (b) Personnel—

It is recommended that when investigators and employees of the Bureau of Farm Management and Farm Economics are assigned to a State for work, they shall be considered as members of the Farm Management and Farm Economics staff in the State institution concerned, and thus represent the United States Department of Agriculture and the State. Men selected for work in the State shall be approved by the contracting parties, namely, the United States Department of Agriculture and the State college or experiment station. In the event that institutions do not have

a Farm Management and Farm Economics staff it is then recommended that any man assigned to work with the institution shall be considered a member of the investigational staff of the institution, his work to be administered in the usual manner in that institution.

(c) Approval of projects—

All projects undertaken by joint representatives or by investigators assigned to institutions shall be subject to approval by the interested authorities in the State concerned and by the Bureau of Farm Management and Farm Economics, United States Department of Agriculture. The projects within the State should be administered by the college or experiment station.

(d) Publication of data—

The suggestion made by the prior committee, in Circular 132, is endorsed and recommended as a basis of action, viz, "Data collected by cooperative effort should be equally available to both parties. Neither party should publish any of the data without consultation with the other party. In case of refusal to publish on the part of either party, the other party shall be free to publish the data on its own responsibility."

(e) Regional studies—

The larger regional or national projects undertaken by the United States Department of Agriculture shall be conducted in cooperation with the State colleges or experiment stations included within the region. In initiating the cooperation the various administrative officers of the States and the United States Department of Agriculture should be called together in so far as practicable to discuss the form of the projects which shall be mutually undertaken. It is recognized that the preparation and publication of material covering a region involving two or more States is peculiarly a function of the United States Department of Agriculture, and that the investigation may best be carried out through cooperation with the several States concerned.







